SONY

3-752-809-21 (1)

Compact Disc Compact Player

COMPACT disc DIGITAL AUDIO

D-303

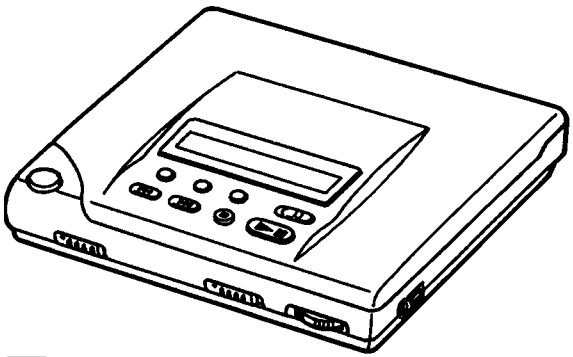
Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

Owner's Record

The model number and the serial number are located at the bottom. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. D-303 Serial No. _____



Discman

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

CAUTION

The use of optical instruments with this product will increase eye hazard.

INFORMATION

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient the receiving antenna

Relocate the equipment with respect to the receiver

Move the equipment away from the receiver

Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

Table of Contents

Warning 2
Features 3
Precautions 3
Location and function of controls 5

Preparations
Power sources 8

Operation
Disc playing 10
Locating a particular portion 12
Various playing modes 14
Using the DISCMAN with other equipment 18

Maintenance 21
Specifications 22
Troubleshooting guide ..... Back cover

Features

- High quality 1-bit DAC (Digital Audio converter) is included.
- Optical digital output jack is included.
- Resume function enables you to play from where you have stopped.

Precautions

On safety

- As the laser beam used in this compact disc player is harmful to the eyes, do not attempt to disassemble the casing. Refer servicing to qualified personnel only.
- Do not put anything in the safety slot inside the disc compartment. If you do the laser beam may come out when the lid is opened. Do not put anything in the DC IN 9 V (external power input) jack.
- The lens on the disc table should be kept clean. Do not touch the lens or poke at it. If you do, the lens may be damaged and the player will not operate properly.
- Do not wrap the player in a cloth, blanket, etc. If you do, the temperature inside the player may rise, resulting in malfunction of the player.
- Should any solid object or liquid fall into the player, disconnect the power source and have the player checked by qualified personnel before operating it any further.

Precautions

On power sources

- Use the rechargeable battery pack (supplied), alkaline batteries (not supplied), house current, or a car battery.
- For AC operation: Use the AC power adaptor supplied with this player. Do not use any other AC power adaptor as it may cause malfunction.
- For car battery operation: Use the mount plate CPM-203P (not supplied) and car connecting pack CPA-2 (not supplied), or car battery cord recommended for this player.
- When the unit will not be used for a long time, be sure to disconnect the power source (AC power adaptor, rechargeable battery pack, alkaline batteries, car battery cord or mount plate) from the unit. To remove the AC power adaptor from the wall outlet, grasp the adaptor itself; never pull it by the cord.

On operation

Since the CD system offers a wide dynamic range, the peaks of the high level inputs are recorded with high fidelity, and the noise level is very low. **Do not turn up the volume while listening to a portion with no audio signals or very low level inputs.** If you do, the speakers may be damaged when a peak level portion is played.

On installation

- Never put the unit:
  - —near heat sources such as radiators or airducts.
  - —in direct sunlights.
  - —exposed excessive dust.
  - —exposed moisture or rain.
  - —exposed mechanical vibration or shock.
  - —in an inclined position.
- If the player is brought directly from a cold location to a warm location, or is placed in a very damp room, moisture may condense on the lens inside the player. Should this occur, the player will not operate. In this case, **remove the disc and leave the player in a warm place for several hours until the moisture evaporates.**
- For the unit to operate at its best, it should not be subjected to temperatures below 5°C (41°F) or above 35°C (95°F).

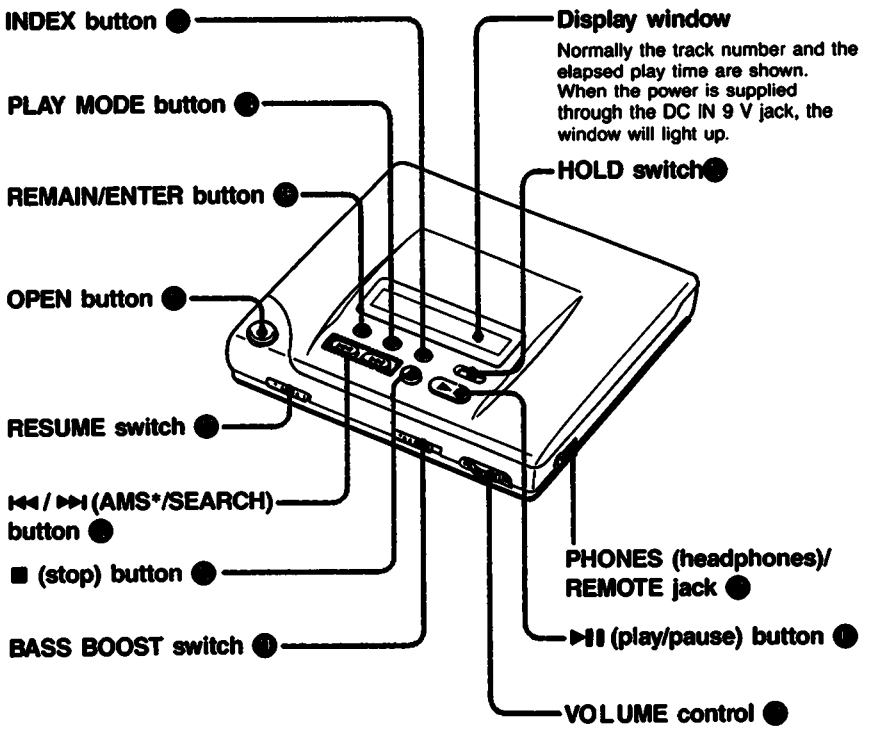
About the headphones

- Avoid listening with your headphones:
  - —while driving, cycling, etc.
  - —for an extended time at a loud volume.
- Remember not to disturb those close to you with the sounds from your headphones.

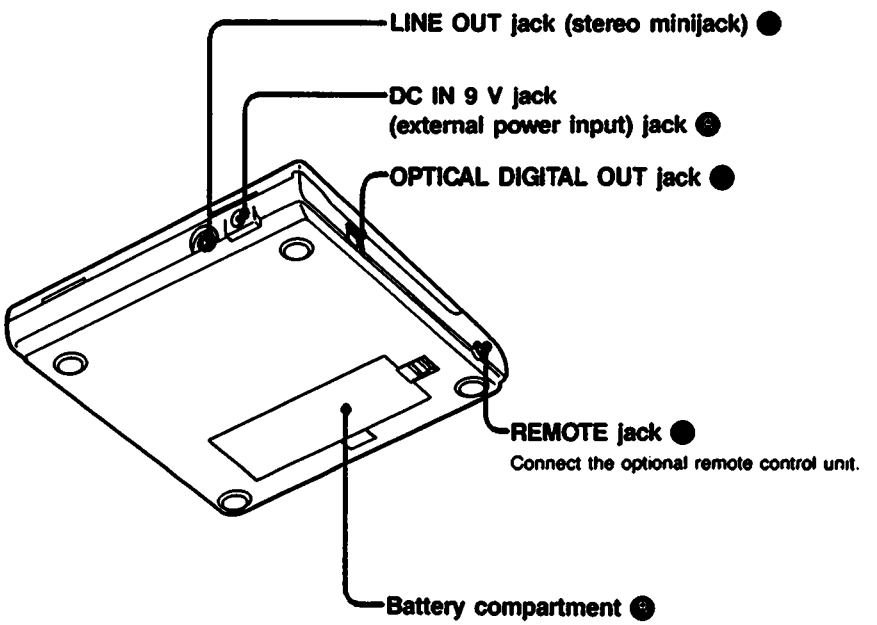
If you have any questions or problems concerning your unit, please contact your nearest Sony dealer.

Location and Function of Controls

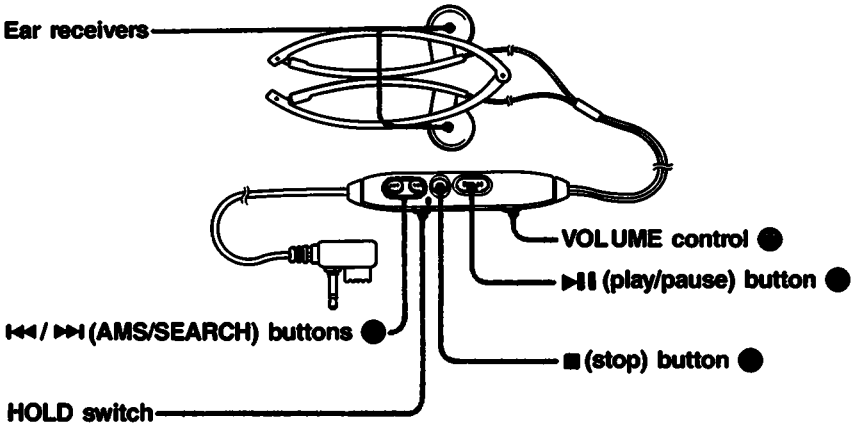
See the pages indicated in ● for details.


INDEX button ●
PLAY MODE button ●
REMAIN/ENTER button ●
OPEN button ●
RESUME switch ●
⏮ / ⏭ (AMS*/SEARCH) button ●
■ (stop) button ●
BASS BOOST switch ●
Display window
Normally the track number and the elapsed play time are shown. When the power is supplied through the DC IN 9 V jack, the window will light up.
HOLD switch ●
PHONES (headphones)/ REMOTE jack ●
⏯ (play/pause) button ●
VOLUME control ●

*AMS is the abbreviation of Automatic Music Sensor.


LINE OUT jack (stereo minijack) ●
DC IN 9 V jack
(external power input) jack ●
OPTICAL DIGITAL OUT jack ●
REMOTE jack ●
Connect the optional remote control unit.
Battery compartment ●

Headphones with remote commander



When you are not using the remote commander, set to HOLD to prevent accidental pressing of the buttons.

You can operate the CD player with the remote commander attached to the supplied headphones.
The buttons and controls on the remote commander have the same function as those with same marks on the unit. Even if the HOLD switch on the unit is set to the right position (HOLD), you can operate the unit with the remote commander.

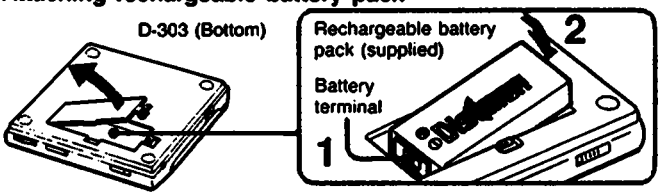
Is it possible to operate other compact disc compact player with the supplied remote commander?
Basically yes. However, some model is not operative.

Power Sources

Using the Rechargeable Battery Pack

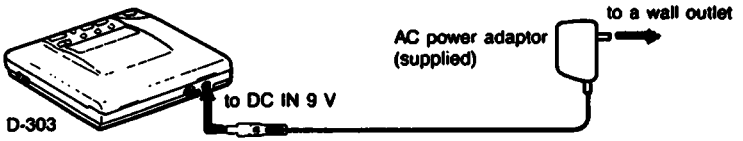
Before using for the first time, charge the battery pack for approx. 30 minutes.

Attaching rechargeable battery pack



Insert the battery pack with correct polarity.

Charging the battery pack

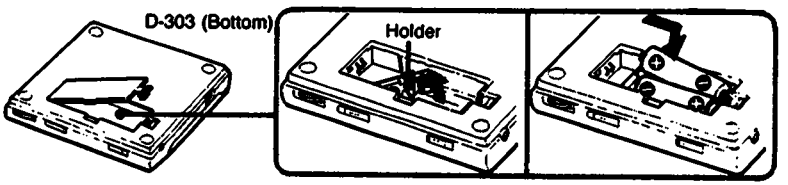


CHARGE will flash while charging and will disappear when charging ends.

Using the Alkaline Batteries

Insert two size AA (LR6) alkaline batteries (not supplied).

Raise the holder and insert the alkaline batteries.



Using the House Current

Connect the supplied AC power adaptor in the same way as for charging the barttery pack.
When the unit will not be used, be sure to disconnect the AC power adaptor.

Play time on rechargeable battery pack

Charging time	Continuous play time*
30 minutes	approx. 2 hours
2 hours	approx. 2.5 hours

*When the CD player is used on a flat and stable place.

If you continuously repeat 30-minute charging, the life of the rechargeable battery pack may become short. Charge for 2 hours unless you are in a hurry.

Notes on rechargeable battery pack

- For charging, use only the supplied AC power adaptor or optional Sony AC-E6M or AC-E90M AC power adaptor.
- Do not charge the battery pack for more than 24 hours.
- Remember to recharge the battery pack after every use. Leaving the battery pack discharged may shorten its life.
- When the battery pack will not be used for a long time, recharge it every six month.
- Store the battery pack in a temperature range of 5°C – 35°C (41°F – 95°F).
- Never throw the battery pack into fire.
- Never short-circuit the battery plug.
- If the electrolyte inside the battery pack should come into contact with cloth or skin, wash the contaminated objects with water immediately. The electrolyte contains sulfuric acid.

When to replace the rechargeable battery pack

If the operating time of the CD player becomes the half of the original time after the battery pack has been fully charged, replace it with new one (BP-2EX, optional).

Play time on alkaline batteries

Play time is approximately 3.5 hours of continuous play.

Note

A noise caused by battery exhaustion may be heard.
If this happens, replace both batteries.

Notes on the alkaline battery

- Insert the batteries with correct polarity.
- Do not mix new and used batteries.
- To avoid damage from possible battery leakage, remove the batteries when they will not be used for extended periods.

Note on the AC power adaptor

Use only the supplied AC power adaptor or AC-E6M/AC-E90M AC power adaptor (not supplied). Do not use any other AC power adaptor.

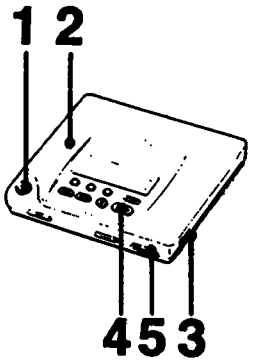
Polarity of the plug

The AC power adaptor supplied with other DISCMAN models with DC IN 9 V or DC IN 6 V jack and AC-D6M, etc. cannot be used with this unit.

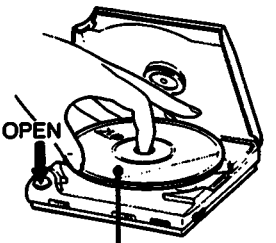
The unit may become warm

The bottom of the unit may be warm during operation, which is normal. The AC power adaptor is warm during charging, which also is normal. However, if it is unusually warm, disconnect the AC power adaptor and consult your Sony dealer.

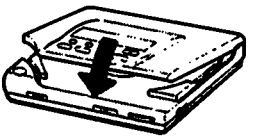
Disc Playing



1 **Put the disc.**



2 **Close the lid.**



"d :SC" indication flashes in the display window. When there is no disc, "no d :SC" indication appears.

Note

If the ▶II button is pressed with the disc inserted upside down, "no d :SC" indication appears and goes off after a few seconds. Press the OPEN button to open the lid, and insert the disc with the label side up.

Operation	Press	The following sound is heard.
To pause	▶II	Very short beep sound is repeated until the pause is released.
To release pause	▶II	—
To stop	■	Long beep sound. The disc stops turning and the power turns off.

To eliminate the beep sound

Do not connect anything to the DC IN 9 V jack. While keeping the ■ button pressed, connect the power source (the rechargeable battery pack, alkaline batteries, or AC power adaptor).
The beep sound setting remains as long as the power source is connected.
Do it the same way every time you connect the power source.

What is this indication? no d :SC

This indicates that the disc has not been iserted, or has been inserted the wrong way.

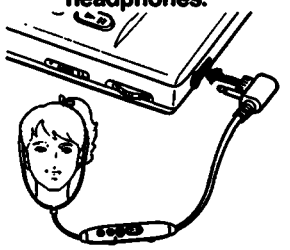
What is this indication?

This indicates the power remaining in the battery. When the battery becomes weak, the segments will go out one by one beginning with the left segment. Use this indication as the criterion to tell when to charge the rechargeable battery pack or to change the alkaline batteries.

What is this indication? Lo batt

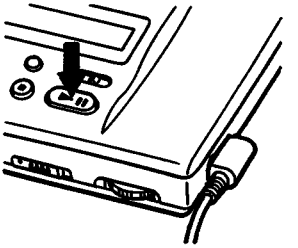
This indicates the power has been exhausted. Do not repeat pressing ▶II when this indication is on, as the unit may operate incorrectly. Charge the rechargeable battery or change the alkaline batteries.

3 Connect the supplied headphones.



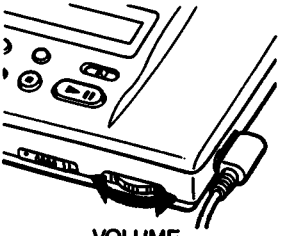
to PHONES/REMOTE

4 Press the ▶II button.



A short beep sound is heard and play starts.

5 Control the volume.



VOLUME

Indication when the disc is inserted

After the "d ISC" indication, the number of selections and the total play time are indicated for a few seconds.

Note on 8 cm CD

An 8 cm CD single can be played without an adaptor.

Controlling the volume with the remote commander

1 Set the VOLUME control of the remote commander to MAX.
2 Using the VOLUME control on the unit, adjust the volume to the level that you want to be the maximum when adjusting with the VOLUME control on the remote commander.
3 Adjust the volume with the remote commander.

Headphones with stereo miniplug

You can use the optional headphones with stereo miniplug with this unit.

To emphasize the bass sound

Set the BASS BOOST switch according to the music. The bass sound is emphasized so that you can enjoy heavy and dynamic sound.

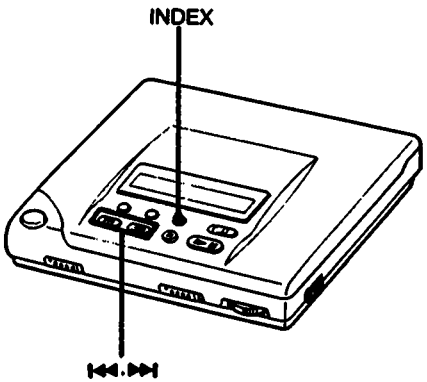
To use the most of the bass boost function

Set the VOLUME control of the remote commander to high, and that of the unit to low.

Note

The bass boost function may be reduced depending on the recording level or the VOLUME control setting.

Locating a Particular Portion



Locating a Particular Selection

To locate the beginning of the current selection

Press I◀◀ once during play or pause.

To locate the next selection

Press ▶▶I once during play or pause.

Locating a Particular Point in a

To go back at high speed

Press and hold I◀◀ during play or pause.

To go ahead at high speed

Press and hold ▶▶I during play or pause.

Locating a Particular Index*

During play or pause, press the INDEX button on the unit, then press I◀◀, ▶▶I on the unit or remote commander lightly to select the index number.

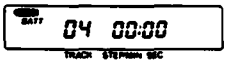
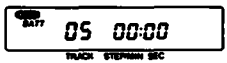
Notes on the AMS function

- When you repeat pressing I◀◀, the beginning of previous selections are located. When you repeat pressing ▶▶I, the beginning of forthcoming selections are located. Locating ends at the last selection.
- When you press I◀◀ or ▶▶I in the pause mode, the player pauses at the beginning of the located selection.

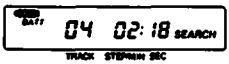
Note on the INDEX search

- If you try to do INDEX search on the disc without index numbers, the player returns to the beginning of the current selection.
- While INDEX appears in the display window, you cannot operate the AMS search. (You can operate the SEARCH.) To operate the AMS search, turn off the INDEX indication.

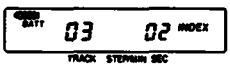
—AMS

	Display window
During play or pause, press ⏮ lightly. Short beep-beep-beep sound is heard.	Ex.: At 4th selection 
During play or pause, press ⏭ lightly. Short beep-beep sound is heard.	Ex.: At 4th selection 

Selection—SEARCH

During play or pause, keep ⏮ pressed.	
During play or pause, keep ⏭ pressed.	

—INDEX search function

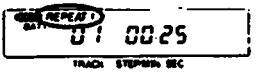
	Track No. Index No. 

* The selections on some discs are divided into sections, such as the movements of a symphony. An index number is assigned to each section thus making it possible to find a particular section easily.

Various Playing Modes

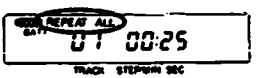
Repeating one selection —1 REPEAT

PLAY MODE



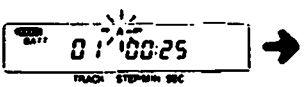
Repeating the whole disc — ALL REPEAT

PLAY MODE



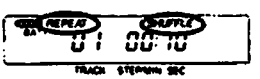
Repeating between two designated points —A ↔ B REPEAT

PLAY MODE



Playing in a random order —SHUFFLE REPEAT

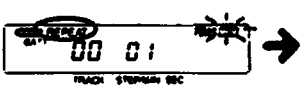
PLAY MODE



Playing in the desired order —RMS* (program)

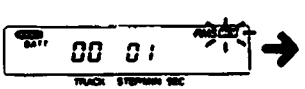
To play repeatedly

PLAY MODE



To play once

PLAY MODE



*RMS is the abbreviation of Random Music Sensor.

To return to normal play, press PLAY MODE.

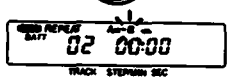
Each time PLAY MODE is pressed during play, play mode changes as follows. To stop the disc, press ■ .

After the current selection ends, the same selection will be repeated.

When play reaches the end of the disc, it restart from the first selection.

1 At the starting point (A) of the repeat play

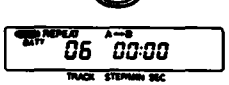
REMAIN/ENTER



Point A has been memorized.

2 At the ending point (B)

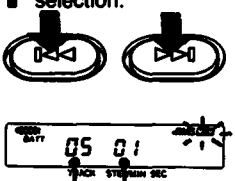
REMAIN/ENTER



Point B has been memorized.
Playing will start from point A.

Play begins from the following selection. The other selections in the disc will be played in a random order. Once all the selections have been played, they will be reshuffled and played in a different order.

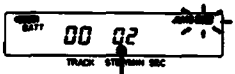
1 Choose the desired selection.



5th selection Program 1

2

REMAIN/ENTER



Program 2

3

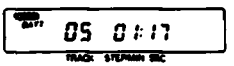
Repeat steps 1 and 2. (Up to 22 selections)

4

MEM disappears and play starts.

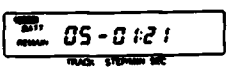
On time counter

Normal indication shows the elapsed play time.



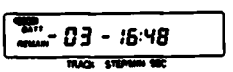
1 min. 17 sec. has elapsed from the beginning of the 5th selection.

To indicate the the remaining time of the current selection, press REMAIN/ENTER.



1 min. 21 sec. remains.

To display the remaining time of the whole disc, press REMAIN/ENTER once more.



3 selections with 16 min. 48 sec. remains.

This does not appear during repeat play. During program play, the remaining time of the whole program appears.
The remaining time of the whole program does not appear while the disc with more than 32 selections is played.

To return to the normal display

Press REMAIN/ENTER again.

During shuffle repeat play

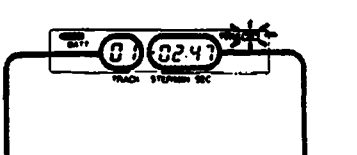
To locate the beginning of the forthcoming selections, press ▶▶| repeatedly.
To locate the beginning of the current selection, press |◀◀. Even if you continue to press |◀◀, the player will not go back to previous selection The play starts from the beginning of the current selection.

When another selection is memorized after 22 selections have been memorized

The first memorized selection will be removed and the new one will be memorized instead.

To check the number of programmed selections and their total play time during RMS programming

Keep the REMAIN/ENTER button pressed during programming. The number of programmed selections and their total play time appears. When the button is released, the indication in step 2 of the RMS operation appears.



Number of programmed selections

Total play time

To play from where you have stopped — Resume play function

Keep the RESUME switch at the ON position. When you press the ▶II button, the play starts from where you have pressed the ■ button. The resume function works in any play mode.

Notes

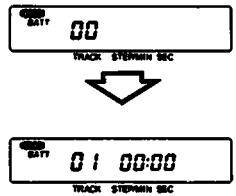
- If you open the lid after pressing the ■ button, the memory of the stopped position is removed, thus cancelling the resume function. The play starts from the first selection.
- When using the unit with an external power source, such as an AC power adaptor or a car battery, and when the power supply is stopped, the memory of the stopped position is removed. To avoid this, use the unit with the rechargeable battery pack or with alkaline batteries.
- When using the unit with an external power source together with the battery pack or alkaline batteries, the play stops when the power supply from the external power source is stopped. In this case the resume function works and the memory of stopped position is kept.

Indications at the beginning of the play are as follows:

(Ex. The play is stopped when 2 min. 34 sec. of 4th selection has elapsed.)

When the RESUME switch is OFF:

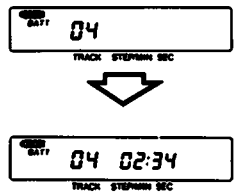
Press ▶II .



When the RESUME switch is ON:

Last playing selection number

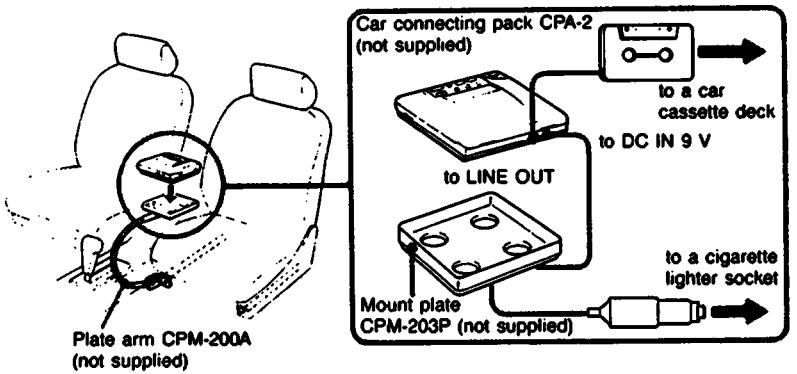
Press ▶II .



Using the DISCMAN with Other Equipment

Listening in a Car

Use the following equipment.
The power is supplied through the cigarette lighter socket.



Notes on using in a car

- Do not put the unit on a dashboard nor leave it in a car parked in sunlight since the temperature may rise excessively.
- Conncecting the car stereo with other than CPA-2 may cause noise.
- CPA-2 may drain the car battery for some model of car stereo.
- Unplug the unit from the cigarette lighter socket when it is not being used. Otherwise, it may drain the car battery.

Note on Mount Plate CPM-200P

D-303 uses the plug of EIAJ standard polarity of DC output 9 V.
When you use CPM-200P, consult your Sony dealer.

Using the battery cord

Use the car battery cord DCC-E190M.

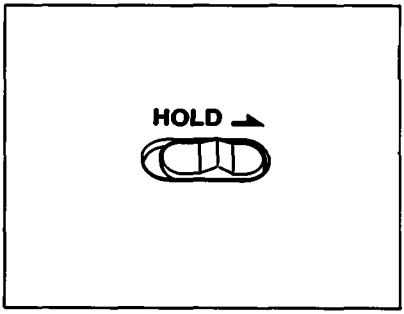
Recommended accessories for listening in a car (not supplied)

CPM-200A plate arm
CPM-203P mount plate
CPM-203CK DISCMAN car kit (This consists of a plate arm, a mount plate and a CPA-2 car connecting pack.)

Carrying the Unit

Use the supplied carrying case.

How to use the HOLD switch
Slide this switch to the right so that its orange mark appears. This locks the buttons except the REMAIN/ENTER button to prevent unconcious operation. While the unit is in the HOLD condition, the remote commander is operative.

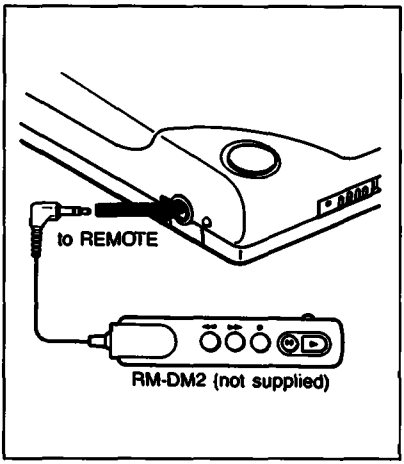


Using the Optional Remote Commander

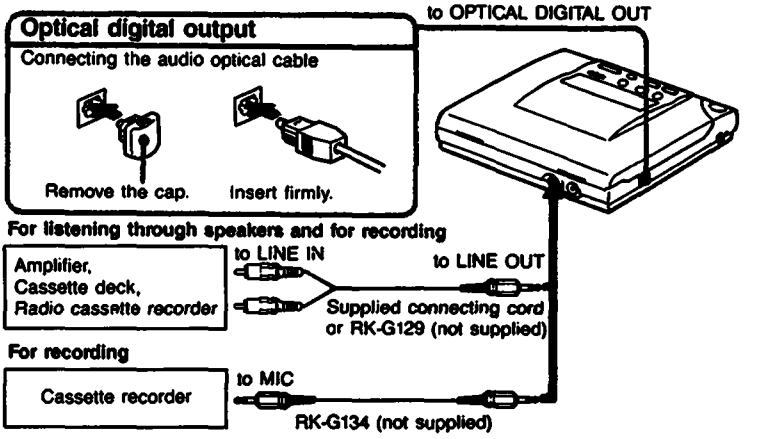
Use the Sony RM-DM2 (wired) or RM-DM5K (wireless) remote commander (not supplied).
Be sure to turn off the CD player before connection.

Notes

- Remove the receiver from the unit when it is not used.
- RM-DM5K is not operative with the battery pack or with alkaline batteries. Use it only with the power supplied through the DC IN 9 V jack.



Listening through Speakers, or Recording



To monitor during recording

Monitor the sound on the connected equipment to check the recording more precisely.

Notes on connection

- Turn off the amplifier before the connection.
- Plug in the white plug to the L (left channel) jack, and the red plug to the R (right channel) jack.
- Be sure to insert the cable connectors firmly into the jacks. Loose connections may cause hum and noise.
- Be sure not to connect the CD player to PHONO input jack of the amplifier.
- If the CD player causes interference to radio and television reception, turn off the CD player or move the CD player away from the receiver.

Note on output level of the LINE OUT jack

The output level of the LINE OUT jack depends on the power source. The output level is lowered when the unit is used with the rechargeable battery pack or with alkaline batteries.

Notes on the optical digital output jack

- The optical gidital signal is output only when the unit is used with the power source supplied through the DC IN 9 V jack. Even when the unit is in the stop mode, the optical digital output jack operates and emits light.
- Connect the unit to the amplifier or DA converter unit having optical digital input. Use the audio optical cable POC-10/15 (1 m/1.5m, not supplied) for the connection.

Maintenance

Cleaning the casing

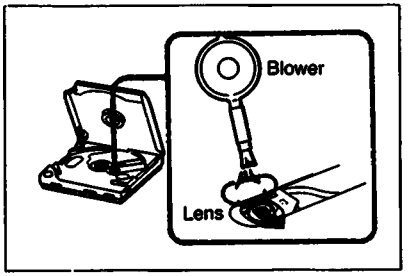
Cleaning the casing with a soft cloth slightly moistened with water or mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

Cleaning the lens

If you have accidentally touched the lens with a dirty finger or if the dust on the lens prevents the unit from operating properly, open the disc compartment lid and clean the lens.

To remove dust

Blow on the lens a few times with a commercially available blower, brush the dust away in the direction of the arrow, then blow on the lens again.



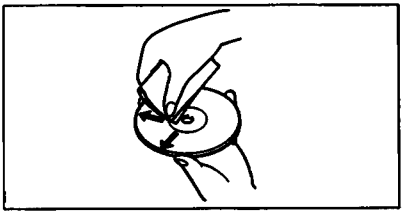
Cleaning the headphone plug

Keep the plug of your headphone clean to obtain the optimum sound. Wipe it with a dry, soft cloth.

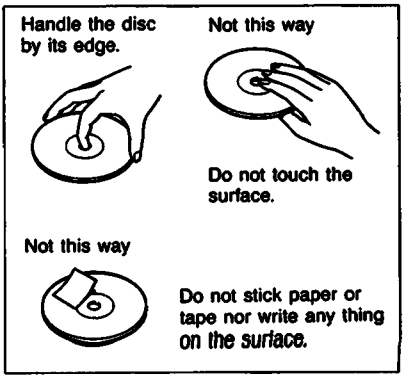
If the unit still does not function properly, please consult your nearest Sony dealer.

Notes on compact discs

Do not expose the disc to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight as there can be a considerable rise in the temperature inside the car.
A scratch or other contamination (finger prints, etc.) on the disc may cause unstable play.
Before playing, clean the disc with the optional cleaning cloth.
Wipe the disc from the center out.
Do not use solvents such as benzine, thinner, commercially available cleaners or antistatic spray intended for analog discs.
After playing, store the disc in its case.



How to handle


Handle the disc by its edge.
Not this way
Do not touch the surface.
Not this way
Do not stick paper or tape nor write any thing on the surface.

Specifications

CD section

System	Compact disc digital audio system
Laser diode properties	Material: GaAlAs Wavelength: 780 nm Emission duration: Continuous Laser output: less than 44.6 μW This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.
Error correction	Sony Super Strategy Cross Interleave Reed Solomon Code
D-A conversion	1 bit quartz time-axis control
Frequency response	20 – 20,000 Hz $^{+0.5}_{-1}$dB*
Dynamic range	More than 96 dB*
Signal-to-noise ratio	More than 100 dB*
Distortion ratio	Less than 0.006% (1 kHz)*
Wow and flutter	Below measurable limit*
Outputs (at 9 V input level)	Line output (stereo minijack) Output level: 1.5 V rms at 50 kilohms Load impedance: over 10 kilohms Optical digital output (optical output connector) Output level: −21 — −15 dBm Wavelength: 630 — 690 nm at peak level Headphones (stereo minijack) 5 mW + 5mW at 16 ohms

*Measured by EIAJ CP-307 at 9 V DC

General

Power requirements	Rechargeable battery pack BP-2EX (supplied) Size AA(LR6) alkaline battery (2, not supplied) DC IN 9 V jack accepts: Sony AC power adaptor (supplied) 120 AC, 60 Hz Sony CPM-203P mount plate, or Sony DCC-E190M battery cord for use on 12 V car battery (not supplied)

Power consumption	3 W DC
Dimensions	Approx. 126.0 × 23.5 × 135.5 mm ($5 \times {}^{15}/_{16} \times 5{}^{3}/_{8}$ inches) (w/h/d) not incl. inclined part (depth), projecting parts and controls
	Approx. 126.0 × 27.4 × 135.5 mm ($5 \times 1{}^{1}/_{8} \times 5{}^{3}/_{8}$ inches) (w/h/d) incl. projecting parts and controls
Weight	Approx. 450 g (1 lb) incl. rechargeable battery pack
Supplied accesories	Headphones with remote commander (1)
	AC power adaptor (1)
	Rechargeable battery pack (1)
	Carrying case (1)
	Connecting cord (1) (stereo miniplug ↔ two phono plugs)

Design and specifications subject to change without notice.

OPTIONAL ACCESSORIES

Wireless remote control unit RM-DM5K
Wired remote control unit RM-DM2
Rechargeable battery pack BP-2EX
Battery charger BC-BP2
Car battery cord DCC-E190M
Car connecting pack CPA-2
Mount plate CPM-203P
DISCMAN car kit CPM-203CK
Plate arm CPM-200A
Active speaker SRS-57
Optical cable POC-10 (1 m), POC-15 (1.5 m)

Your dealer may not handle some of the above listed optional accessories. Please ask the dealer for detailed information about the optional accessories available in your country.

Troubleshooting Guide

Should any problem persist after you have made the following checks, consult your nearest Sony service facility.

Symptom	Cause and/or remedy
Disc play does not start.	• The disc is inserted upside down or incorrectly. → Insert the disc correctly with the label side up. • Dusty or defective disc. (See page 21.) • Dirty or dusty lens. (See page 21.) • The disc compartment lid is not closed. • Moisture condensation. → Leave the player in a warm place until the moisture evaporates. • The AC power adaptor is not plugged into the wall outlet. • The car battery cord is not firmly connected. • The unit is not placed on a level surface. • The HOLD switch is slid to the right. • Weak battery. (See page 9.)
No sound from the headphones.	• The headphone plug is not firmly connected to the PHONES/REMOTE jack. • Adjust the VOLUME control. • Dirty plug. (See page 21.)
No sound from the connected speakers.	• Check the connections. • The amplifier is not turned on.
Skipping of sound.	• Dirty or defective disc. (See page 21.) • Dirty lens. (See page 21.) • Strong vibration.

Sony Corporation Printed in Japan